Implementation Date
Fall 2008

PROGRAM CONCENTRATION: **Architecture, Construction, Communications & Transportation**

CAREER PATHWAY: **Aircraft Support**

COURSE TITLE: **Aviation Maintenance III**

Aviation Maintenance III is the fourth course of a four-year term of study. Students continue to build and expand their knowledge base in the basics of aircraft maintenance and focus on aircraft engines, overhaul, and inspection procedures.

ACT-AMIII-1. Students will demonstrate the ability to perform the following tasks as they relate to reciprocating engines.

a. Explore the historical development of radial, in-line, and horizontally opposed aircraft engines.
b. Explore aircraft fuel systems - diesel, alternative fuels, 4-stroke, and 2-stroke.
c. Overhaul reciprocating engine.
d. Inspect, check, service, and repair reciprocating engines and engine installations.
e. Install, troubleshoot, and remove reciprocating engines.

ACT- AMIII -2. Students will demonstrate the ability to perform the following tasks as they relate to turbine engines.

a. Explore the historical development of turbine engines.
b. Understand the basics of jet engine overhaul.
c. Inspect, check, service, and repair turbine engines and turbine engine installations.
d. Install, troubleshoot, and remove turbine engines.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEC), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor

associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.